

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>9574 WO/JS/LA</b>	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/SE 2004/002003</b>	International filing date (day/month/year) <b>22 December 2004</b>	(Earliest) Priority Date (day/month/year) <b>23 December 2003</b>
Applicant <b>ABB Research Ltd et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (see Box No. II)

3. ☐ Unity of invention is lacking (see Box No. III)

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

a. the figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

1  
INTERNATIONAL SEARCH REPORTInternational application No.  
PCT/SE 2004/002003

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H02H 3/02  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H02H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5867356 A (DUGGAL ET AL), 2 February 1999 (02.02.1999), column 1, line 6 - line 11; column 4, line 8 - line 14, figure 1, claim 1 --	1-14
X	EP 0474186 A2 (HITACHI, LTD. ET AL), 11 March 1992 (11.03.1992), column 1, line 5 - line 12; column 5, line 15 - column 6, line 21, figure 1 --	1-14
A	US 5689395 A (DUFFY ET AL), 18 November 1997 (18.11.1997), figure 3 -- -----	1-14

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

## \* Special categories of cited documents:

- \* "A" document defining the general state of the art which is not considered to be of particular relevance
- \* "E" earlier application or patent but published on or after the international filing date
- \* "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \* "O" document referring to an oral disclosure, use, exhibition or other means
- \* "P" document published prior to the international filing date but later than the priority date claimed

\* "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\* "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\* "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\* "&amp;" document member of the same patent family

Date of the actual completion of the international search

17 March 2005

Date of mailing of the international search report

18-04-2005

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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

01/03/2005

International application No.

PCT/SE 2004/002003

US	5867356	A	02/02/1999	NONE		
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EP	0474186	A2	11/03/1992	SE	0474186	T3
				CN	1032835	B,C 18/09/1996
				CN	1059623	A 18/03/1992
				DE	69129137	D,T 03/12/1998
				JP	4112619	A 14/04/1992
				KR	200432	B 15/06/1999
				US	5305174	A 19/04/1994
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US	5689395	A	18/11/1997	AT	253780	T 15/11/2003
				CN	1080476	B,C 06/03/2002
				CN	1201560	A 09/12/1998
				DE	69630608	D,T 23/09/2004
				EP	0850505	A,B 01/07/1998
				EP	1361637	A 12/11/2003
				JP	11512599	T 26/10/1999
				WO	9710637	A 20/03/1997
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